

rocks, is overlaid by a deposit of a more recent period. The materials that compose it are gravel, sand, ferruginous clays, approaching to red ochre and lignitiferous clays, varying in color from dark grey to black, which latter has sometimes been mistaken for the *black marl*. The excavations for the Baltimore and Philadelphia Rail Road, afford facilities for an examination into the character of this deposit, and at the same time show that it is not of great depth; for on the east side of the Susquehanna they reach the primary rock at the depth of only from twelve to fifteen feet, and in the vicinity of Elkton, at Lonerger's cut, which is made through a spur of the Chestnut Ridge, where the surface had all the appearance of an ochrey clay, it actually proved to be a decomposed *hornblende* rock, enveloping masses of ferruginous *jasper*. Beds of iron ore might have been expected to occur in a deposit thus constituted, and it is somewhat remarkable that these excavations should have disclosed no resources of this kind. The only bed of ore known to exist in these parts is in the vicinity of North-east Village, on the east side of the river, on the lands of Gen. Cadwalader, where Mr. W. Whitacre of the Principio Furnace, informs me that he has raised several tons of very good quality. The ore occurring on Flint Hill, near Elkton, is not of a good quality, being too flinty, and approximating in character to a ferruginous *jasper*.

The region of the primary rocks, comprising the whole of the upper portions of the county, furnishes many valuable materials, some of which are fully appreciated, whilst others have been, so far, neglected. Among the former is the building stone quarried near Port Deposit, which is a *sienite* of very uniform texture. The situation of these quarries just at the head of tide, as well as the good quality of the stone, will secure to them a constant and increasing demand for many years to come. From data that were furnished me by Mr. Anthony Smith, I estimate that from twelve to fifteen thousand perches of the stone are disposed of annually. *Soapstone*, of very good quality occurs in several localities through the county. On the west branch of North-east river, about two miles from the head of tide, at Patterson's works, a quarry was formerly opened, from which large slabs used as stepping stones to some of the houses in Charlestown, have been procured. It is of a green color, compact, and easily cut. At New Leeds, on the Little Elk, there has also been a quarry of soapstone opened, but which is now likewise abandoned. *Talcs*, and white varieties of *asbestos*, that are closely allied to the soapstone occur in the *serpentine* rocks at the north boundary of the county, between the Octorara and the Conowingo, and east of the Octorara near the Pennsylvania line. These minerals have of late years acquired a value which they were not formerly known to possess. They are now used in the manufacture of what have been termed *stone paints* as substitutes for the metallic pigments. The soft and light colored varieties are selected, and are ground up with